REMARKS

Claims 1, 2, 4-9 and 11-12, 13 and 17-18 are pending in the subject application upon entry of this Amendment.

The independent claims have been clarified as supported by, for instance, page 8 and Examples 1 and 2 at page 11 of specification to demonstrate how Applicants can advantageously raise the melting point of the powder coating so that it does not melt at higher engine operation use temperature thereby increasing efficiency by allowing engine operation for extended times and at higher temperatures. Claim 11 specifies an electrically conductive non-metallic substrate, as specified at page 6 of the specification. Claim 18 further clarifies the deposition process.

In the outstanding Action, the Examiner rejects claims 1-2, 4-9 and 11-14 under 35 USC § 103(a) as being unpatentable over US Patent 5,250,360 (Andrus et al.) in view of newly cited US 2004/0068027 (Daly et al.) or newly cited US 2004/0063817 (Ilenda et al.). The Examiner then rejects claims 1-2, 4-9 and 11-14 under 35 USC § 103(a) as being obvious over US Patent 6,531,524 (Ring et al.) in view of US2004/0115477 (Nesbitt).

Applicants respectfully request withdrawal of the finality of the rejections in view of the newly cited and applied references. Accordingly, such favorable action is earnestly solicited.

The above rejections are also respectfully disagreed with, and are traversed below.

Andrus et al. relate to a specific composition comprising a barium silicate or strontium silicate glass-ceramic material. Andrus et al. disclose at column 6 that electrostatic spraying can be employed as the deposition method, wherein electrostatically charged dry glass powder is uniformly sprayed onto a superalloy body. At column 6, Andrus et al. further describes that its glass powder-coated metal body is then heated to a temperature below 1000C to soften the glass particles and produce a dense, smooth, continuous glass coating that is essentially free from crystallization. The glass coated body is then heated to a somewhat higher temperature to effect development of a crystal phase which forms a dense,

strong, refractory, crystalline coating. "A key feature of this procedure is the ability to control the timing of crystallization, and thus the reproducibility of the coating process." Thus, Andrus et al. appear to require a multi-step heating process as opposed to Applicants' claimed heat treatment step.

The Andrus et al. reference is not directed to producing a higher melting point coating resulting in higher engine use temperatures, in a process as claimed herein. Andrus et al. do not disclose or suggest Applicants' processing steps employing the application of the claimed fritted glass matrix with ceramic particles trapped in the matrix, and heating in a single step the applied powder coating to raise the melting point of the glass of the matrix by reacting the ceramic particles with the glass thereby raising the melting point and resulting in a higher engine use temperature. Advantageously, Applicants thus raise the melting point without softening of the matrix.

Daly et al. relate to a low gloss powder coating, which is applied to hardwood substrates. Daly et al. do not relate to any method of coating gas turbine engine superalloy components as claimed herein. Ilenda et al. relate to coatings resistant to damage from stresses caused by sunlight, chemical spills and adverse weather conditions (paragraph 1 of Ilenda et al.). As in the case of Daly et al., Ilenda et al. do not relate to any method of coating gas turbine engine components, as claimed herein. The articles to be coated by the Ilenda et al. coating include, for example, polyolefin pipes, luggage, automotive parts, prepegs for printed circuit boards (see paragraph 12 of Ilenda et al). Thus, the skilled artisan would not be motivated to even look to these references for guidance. There is no suggestion in these references that the methods disclosed therein would be desirous for the coating of gas turbine engine components in a method as claimed by Applicants. Daly et al. and Ilenda et al. relate to solving a completely different problem than that addressed and solved by the subject claims.

Nesbitt discloses the application of dry particles to a layer of wet bonding material applied to a substrate. The wet bonding material includes an additive or agent, such as a resin. (Paragraph [0023]). The layers are then cured. (Paragraph [0035]). Thus, Nesbitt requires the interaction of a wet bonding layer and the dry particle layer to achieve its cured layered

system. As disclosed at Page 3, paragraph [0020], Nesbitt is particularly directed to a coating reinforcing underlayment for coating substrates. This underlayment includes the wet bonding material described above. Nesbitt further discloses at Page 20, paragraph [0178], that the underlayment can be used as a single process without any topcoats to provide adhesion of paper or grip or tractive strength as related to moving paper or other products with a roller at high speeds.

At Paragraph [0147], Nesbitt discloses the use of tribocharged powder technology to enhance the dry particle attachment or adherence to the wet bonding material layer, particularly in odd-shaped configurations. Nesbitt requires the use of its wet bonding material layer to which its dry particles adhere. As in the case of Andrus et al., Nesbitt fails to disclose or suggest Applicants' method to produce a higher melting point coating resulting is higher engine use temperatures including the application of powder coating comprising a fritted glass matrix with ceramic particles trapped in the matrix.

The addition of the Ring et al. reference does not cure the shortcomings of Nesbitt. That is, Ring et al. merely disclose various powder coating compositions relating to the reduction of gloss. Ring et al. appear to be particularly related to paint compositions (see Background and Summary). Ring et al. do not disclose or suggest the use of any powder coating compositions to protect gas turbine engine components, as claimed herein. Ring et al. merely disclose that powder coatings are generally applied by an electrostatic spray process (see Field section).

Regarding the Examiner's assertion at page 7 of the Office Action that Andrus teaches that the powder coating material may be applied in any conventional matter and, as such, it would have been obvious to one of ordinary skill in the art to have employed other conventional coating processes including those claimed with a reasonable expectation of success, Applicants respectfully assert that the cited references do not suggest the subject claims. As explained above, Andrus et al. relate to a specific composition comprising a barium silicate or strontium silicate glass-ceramic material, and are not directed to producing a higher melting point coating resulting in higher engine use temperatures in a process as claimed herein. Andrus et al. do not disclose or suggest Applicants' processing steps employing the

application of the particularly claimed fritted glass matrix with ceramic particles trapped in the matrix and heat treatment step.

Additionally, with particular regard to claim 11, which specifies that the component includes an electrically conductive non-metallic substrate, the cited references do not disclose or suggest the claimed process with such features.

It is asserted that there is no teaching, suggestion or motivation that would lead one of ordinary skill in the art seeking to develop that which Applicants claim to combine and then modify the teachings of the afore-cited references in an attempt to arrive at the subject claims. It is respectfully asserted that the TSM test provides helpful insights into the nonobviousness of the subject claims.

Thus, in an objective analysis considering the scope and content of the afore-cited art, the level of ordinary skill in the art, and the differences between the claimed invention and the prior art, it is respectfully asserted that the Examiner's obviousness rejections should be reconsidered and withdrawn.

No new issues are raised that would require a search and the Examiner is respectfully requested to enter and consider the amendments and remarks herein. The Examiner is also respectfully requested to reconsider and withdraw the finality of the rejections in view of the application of newly cited references.

All issues raised by the Examiner having been addressed, the subject application is believed to be in condition for immediate allowance. Accordingly, such favorable action is requested.

A call to the undersigned attorney at the telephone number listed below would be sincerely appreciated should the Examiner have any questions or believe a discussion would advance the prosecution of the subject application.

Respectfully submitted:

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